

CRAFTSMAN®

INDUSTRIAL SHELVING UNIT PROJECT PLAN



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BUILD NOTES

Follow this plan and we'll show you how to transform old reclaimed wood and angle iron into the perfect new shelving unit.

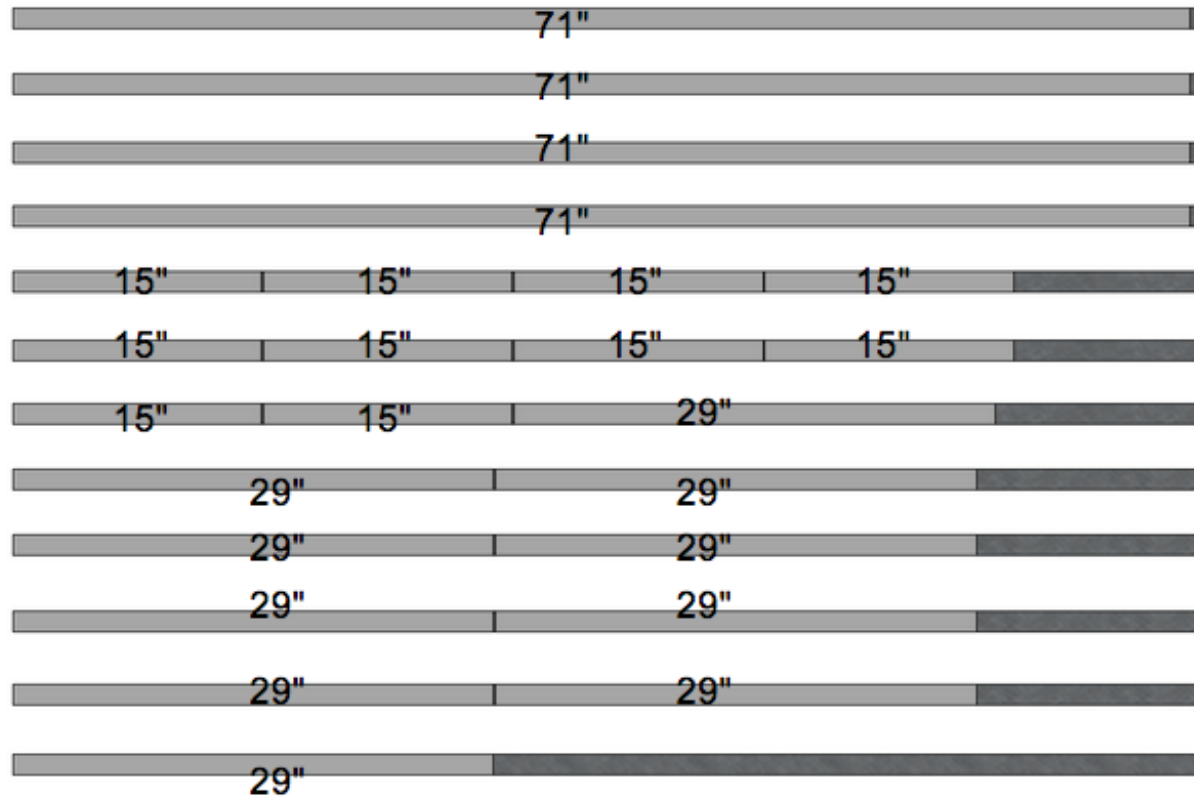
MATERIALS

- (11) 1.25" x 72" Angle Iron
- Reclaimed Lumber
- 5/8 1.5" Bolts
- 5/8" Nuts
- Stain
- Polyurethane
- Glue
- Dowels

TOOLS

- Table Saw
- 12" Miter Saw
- Metal Cutting Blade
- Angle Grinder with Flap Wheel
- Drill Press
- Drill/Driver
- Drill Bits for Metal and Wood
- Caulk Gun
- Bench Planer
- Random Orbit Sander
- Belt Sander
- Clamps
- Safety Goggles
- Gloves

CUTLIST



28.5" x 7.375"

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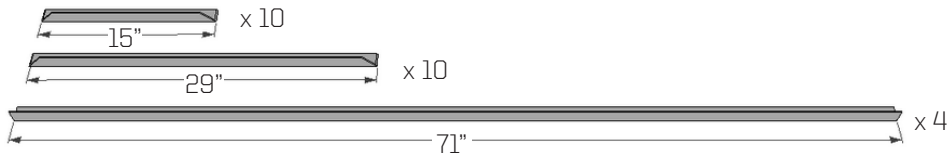
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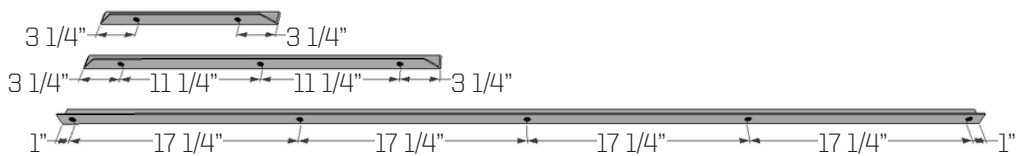
28.5" x 7.375"

1.



Cut the angle iron for the upright supports using a miter saw with a metal cut off wheel.

2.



Cut holes in the metal supports using a drill press with a 5/8" bit.

3.



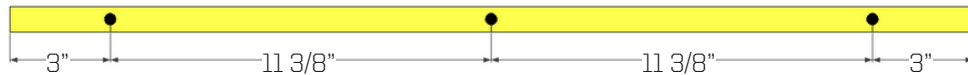
Use a file to clean up any burrs on the metal

4.



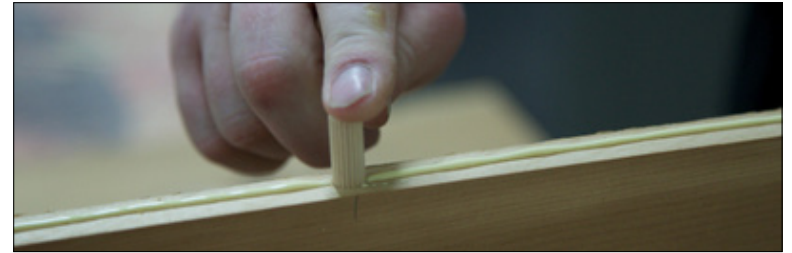
Run each piece through a table top planer. Do all of the tops first then the bottoms; this will ensure that each shelf is of a consistent thickness. Cut each piece to length when the milling process is complete.

5.



Join your boards to create shelves. Mark your dowel holes on the interior side of one piece, then clamp your pieces together flush and transfer your marks across all the pieces. Repeat until all the joining edges are marked. Then, use a doweling jig to drill three 3/4" deep holes for your dowels. TIP: wrap a piece of painters tape on your bit to help mark the depth. The tape will spin freely until you hit your depth; when you notice the spinning change, you're at 3/4". Add a strip of glue on the board and in the holes.

6.



Insert the dowels. Connect each shelf and firmly clamp them together. Let them sit overnight.

7.



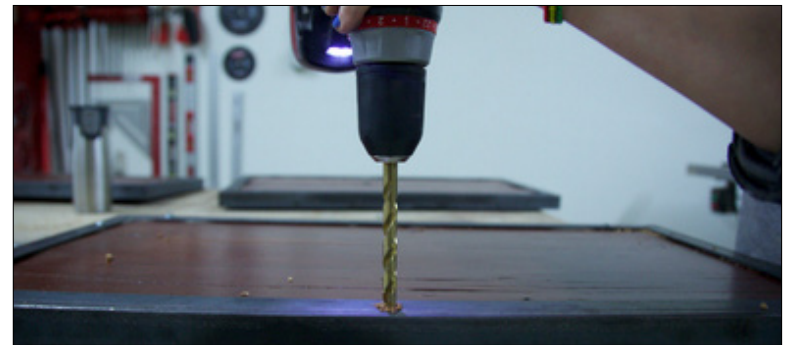
After the glue dries, run over each shelf with a random orbit sander a couple times. Add two coats of stain, then polyurethane. Sand between each coat with 180 or 200 grit sandpaper, then wipe with a tack cloth to remove dust before adding another coat.

8.



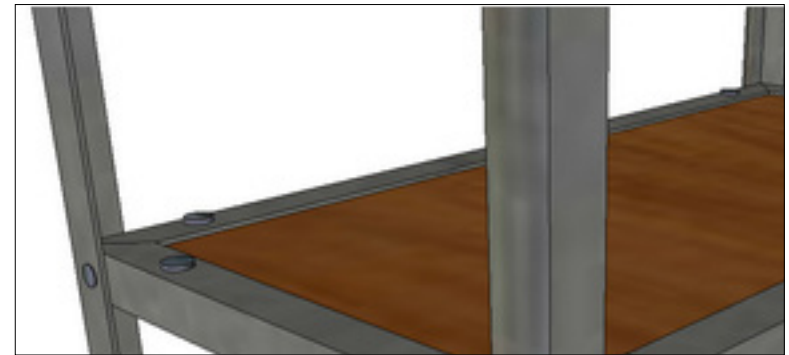
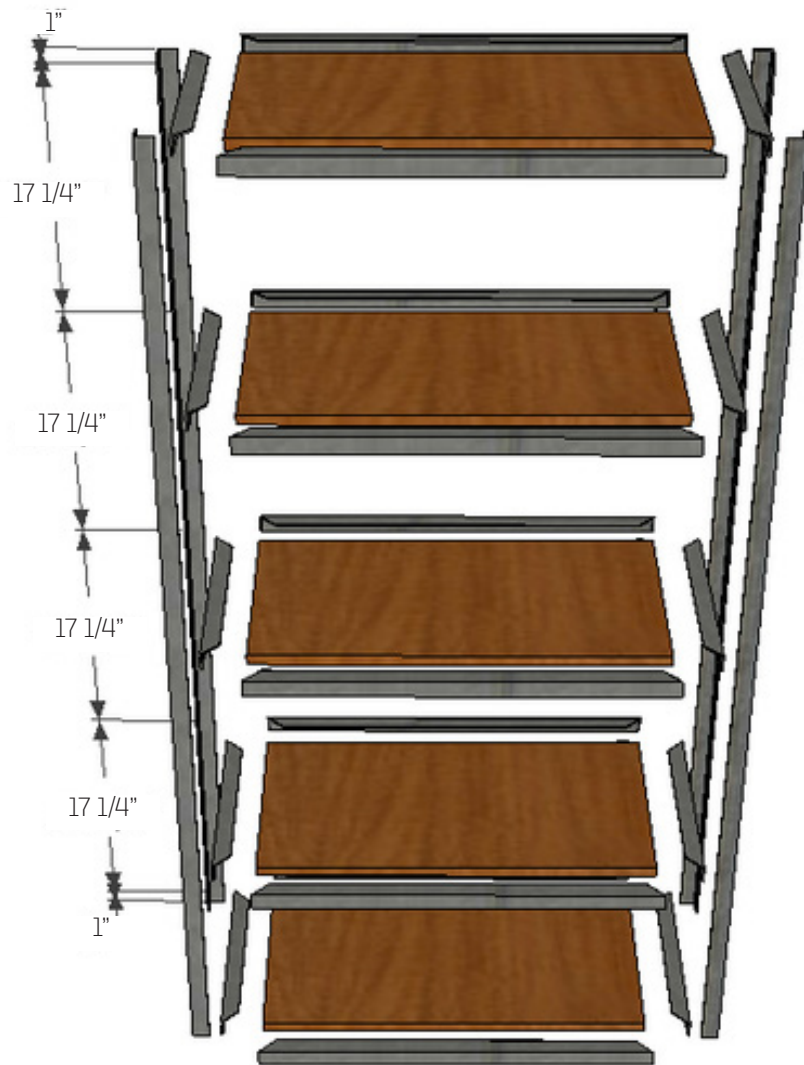
Attach the miter cut angle iron pieces to the wood using heavy duty construction grade adhesive.

9.



Time to attach the bolts. Drill a pilot hole before screwing them in or else you run the risk of the wood splitting. Use an angle grinder with a metal cut-off wheel to cut off the ends of the bolts once they're in. After the ends are cut, use a flap wheel in your angle grinder to buff out the rough cut edges of the bolts.

10.



The most stable assembly option would be to weld your shelves to the frame. If you can't weld, we recommend using lag bolts and heavy duty construction adhesive, placed evenly on each corner where the shelves meet the frame. Drive your lag bolts through the pre-drilled holes in your frame and into the shelves for strength. Use clamps to hold everything together as you go.

FINISHED

Clamp everything together and let it sit overnight. Nicely done. Go to [Facebook.com/Craftsman](https://www.facebook.com/Craftsman) and show us what you've created!

